Improving the Quality of Life for Patients with GVHD Through Occupational Therapy Strategies

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No known or perceived conflicts of interests

No endorsements

Associate Investigator on clinical trials with off label use of medication
• Become familiar with the role and purpose of occupational therapy

• Describe ways occupational therapists measure success in treatment of person’s with cGVHD

• Understand some of the main approaches used in OT treatment of cGVHD
What is Occupational Therapy?

A Discipline within Rehab Medicine That Evaluates A Person’s Ability To Accomplish Important Daily Tasks

• Uses assessment and intervention to develop, recover, or maintain the meaningful activities, or occupations

• Works on restoring a person’s function or fosters adaptation
During OT sessions

• Individualized evaluation to set goals
• Customized interventions to improve the ability to perform daily activities and reach the goals
• Outcome evaluations to ensure that the goals are being met or to make changes to the intervention plan
Ways to measure progress:

- Based on patient-centered needs
- Used to document progress or change
- May be used for research in some cases
- No OT measures are cGVHD specific
What is Actually Addressed by OT?

Physical Abilities

- Range of motion
- Strength
- Balance
- Edema
- Coordination/dexterity
- Functional mobility
- Transfers

Functional Abilities

- Fatigue
- Roles/Hobbies
- Cognition
- Functional Vision
- Activities of Daily Living
  - Basic
  - Instrumental
Basic Activities of Daily Living (BADL)

- Bathing and Showering
- Toileting and Toilet Hygiene
- Bowel and Bladder Management
- Dressing
- Feeding - Swallowing and Eating
- Functional Mobility
- Personal Device Care (dentures, hearing aids)
- Personal Hygiene and Grooming
- Sexual Activity
**Instrumental Activities of Daily Living (IADL)**

- Care of pets
- Care of others
- Child rearing
- Communication management
- Community mobility/driving
- Financial management
- Health management and maintenance
- Meal preparation and cleanup
- Religious and spiritual activities and expressions
- Safety and emergency maintenance
- Shopping
- Hobbies/Leisure
Bodily Functions that are Considered During an OT Assessment

1. Neuro-musculoskeletal Functions
2. Skin Functions
3. Immunological/Respiratory Functions
4. Visual Sensory Function
5. Mental Functions
6. Digestive Function
7. Genitourinary & Reproductive Functions
What does the research tell us?

- Limited OT Research Literature on cGVHD
- Oncology Literature:
  - Results measured in different ways
  - Studies had small number of people
  - Groups studied were very different
    - Attitudes Toward Exercising
    - Dealing with Difficult Life Experiences
What does research tell us?

Results of meta-analysis

- Moderately high when guided by a therapist
- Moderate effect for self guided home program (Mohammed et al, 2018)
- Exercise had a positive effect on strength, fatigue and quality of life if started pretransplant
- No effect on arm strength or cardiopulmonary function when started after transplant (Liang Y, 2018)
- Consensus criteria recommend interdisciplinary collaboration
Neuromuscular/Skin Complications:

Chronic GVHD phase

- Myositis/Atrophy
- Fasciitis ("groove" sign)
- Decreased Range of Motion
  - Joint Contractures
  - Deep Fibrosis
- Limb Edema
- Nail Dystrophy
- Open Ulcers and Wounds

Courtesy of Edward Cowen, MD 2014
Treatment Recommendations: Chronic Phase

- Daily Exercises
  - active movements
  - slow sustained stretches
  - Passive joint manipulation
- Not Well Established
  - timepoint to initiate
  - duration, intensity and frequency
- Deep Massage use with Great Caution
  - Microtrauma
  - Overstretch
  - Possibility of flare due to irritation or friction
Orthotic Interventions:

Chronic Phase

- Lengthen ligaments
- Stimulate connective tissue growth
- Stimulate re-organization
- Worn short durations
- Individualized
Stretching Exercises are Very Important...
EDEMA MANAGEMENT

- Elastic Compression Garments
- Bandaging (Short Stretch)
- Inelastic Compression (Velcro closure wraps)
- Pneumatic Compression Pumps
Skin Integrity: Clothing Recommendations

- **Clothing**
  - Loose
  - Avoid Elastic Bands
  - UV Protection
  - RIT Dye makes SunGuard™
  - Sun Protective Clothing
    (glasses, hats, gloves)

Photos courtesy of Edward Cowen, MD 2014
Respiratory System: Complications

- Infections
- Pleural Effusions
- Fibrosis
  - Restrictions in Range of Motion Affecting Respiratory Integrity
  - Decreased Muscle Strength
- Fluid Overload

Baird K. et. al (2013)
Respiratory System: Functional Interventions

- Body Mechanics
- Pursed Lip Breathing
- Stretches to Open Airway
- 3 P’s (pace, prioritize and plan)
- Home Modifications
- Long Handled Adaptive Devices
- Bathroom Safety Equipment

Photo Courtesy of Edward Cowen, MD 2013
Reasons to Use Adaptive Equipment

- Compensate for physical/functional loss
- **Enhance safety**
- Increase comfort
- Reduce pain/effort
- Promote independence
- Support Quality of Life
- Reduce strain on family/caregivers
- Promote a better sense of self-competence
Examples of Self Care
Adaptive Equipment
Adaptive Equipment:
Instrumental Activities of Daily Living
Visual System: Complications

- Light sensitivity
- Burning or Dry Eye Sensation
- Itchy and Painful
- Surface Related Blurry Vision
- Reduced or Altered Tear Production
Visual System: Interventions

- Humidifiers
- Air Filters
- E-books (back lighting)
- Timers 20-20-20 rule
- Specialized Glasses
  - Moisture Chamber
  - Blue Light Blocking Glasses

https://www.zienaeyewear.com/
• Computer screen adaptations
  – Font
  – Contrast
  – Antiglare Screen/Filter
  – Environmental
    • Remove fluorescent lighting
    • 18-22” away from monitor
  – Look down at Monitor
Involvement of multiple organs leads to challenges in treatment.

Requires a multidisciplinary approach.

Need for consistency in measuring progress.

Effects a person’s performance abilities in valued roles and engagement in occupation.
Living Life to it’s Fullest......
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